

L 23291-66

ACC NR: AP6012125

working-gas feeds are connected to a common feed line. To reduce the size of the pump, each nozzle is equipped with an individual mixing chamber formed by two shaped disks. These chambers are positioned along the nozzle axes (see Fig. 1). Orig. art. has: 1 figure. [TN]

SUB CODE: 21/ SUBM DATE: 01Feb65/ ATD PRESS: 4230

Card 2/2

L 38154-66 EWT(1)/EWT(m)/T-2 DE/WE

ACC NR: AP6025614

SOURCE CODE: UR/0413/66/000/013/0055/0055

INVENTOR: Kogan, P. A.

ORG: none

TITLE: Gas-jet ejector. Class 27, No. 183318

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 55

TOPIC TAGS: ejector, aircraft fuel system

ABSTRACT: The proposed ejector contains a receiving chamber with a gas feed line, an annular nozzle, and an annular mixing chamber with a center body positioned along the



Fig. 1. Gas ejector

1 - Receiving chamber; 2 - feed line;
3 - nozzle; 4 - mixing chamber; 5 -
center body; 6 - support ribs.

Card 1/2

UDC: 621.694.621.69

Card 2/2 MLP

ACC NR: AP6035912

SOURCE CODE: UR/0413/66/000/020/0158/0158

INVENTOR: Kogan, P. A.; Yakushin, A. N.

ORG: none

TITLE: Absolute-pressure regulator for a sealed aircraft cabin. Class 42, No. 187420

SOURCE: Izobreteniya, promyshlennyye obraztsey, tovarnyye znaki, no. 20, 1966, 158

TOPIC TAGS: pressure compensator, pressure measurement, pressure regulation, pressure regulator, aircraft pressurization, *aircraft cabin equipment*

ABSTRACT: An Author Certificate has been issued for an absolute-pressure regulator for a sealed aircraft cabin, which contains pressure-drop and speed-of-change pickups (consistings of membranes with rigid centers connected valves for controlling the escape of air to the atmosphere) and an absolute-pressure pickup. To increase regulator reliability and simplify its design, the absolute-pressure pickup is in the form of a spring-supported membrane; to one side is fed the pressure being measured, and to the other side a proportional pressure; this is measured from the minimal cross section of a jet nozzle made in the form of a critical Venturi pipe and connected to an ejector suction line. Orig. art. has: 1 figure. [WA-98]

SUB CODE: 01, 14/ SUBM DATE: 06Feb65

Cord 1/1

IMC: 621-531 629-13.01

ACC NR: AP6035838

(A)

SOURCE CODE: UR/0413/66/000/020/0042/0042

INVENTOR: Kogan, P. A.; Nikulin, V. K.; Yakushin, A. N.

ORG: None

TITLE: Turbofan assembly with grease-packed bearings. Class 17, No. 187045

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 42

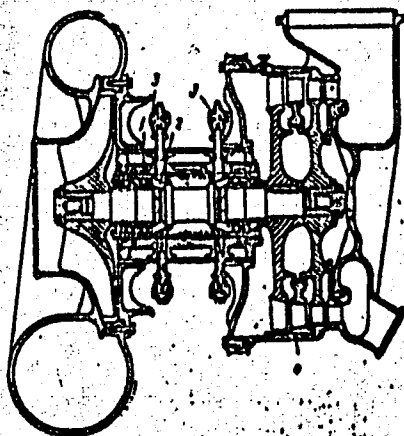
TOPIC TAGS: antifriction bearing, industrial blower, grease, turbine

ABSTRACT: This Author's Certificate introduces: 1. A turbofan assembly with grease-packed bearings. The unit consists of a two-stage turbine mounted on a common shaft with a blower impeller. The weight and overall dimensions of the installation are reduced while simultaneously increasing the rotational velocity by using grease-packed antifriction bearings with the inner protective ring removed. The bearings have auxiliary lubrication make-up cavities in the housing and cups for adding grease. A water heat exchanger is built into the housing of the bearings. 2. A modification of this assembly in which remanent disbalance (radial dynamic loading) is reduced by using a one-piece housing for the two-stage turbine with a suspended diaphragm between the turbine discs.

Card 1/2

UDC: 621.572/576 629.13.01/06

ACC NR: AP6035838



1—bearings; 2—make-up cavities; 3—grease cups; 4—turbine

SUB CODE: 13/ SUBM DATE: 17Jul62

Card 2/2

KOGAN, Petr Khaskelovich; ASTASHKEVICH, B.M., kand. tekhn.nauk,
retsenzent; BRAYLOVSKIY, N.G., red.; USENKO, L.A., tekhn.
red.

[Electrochemical methods for processing the aluminum parts of
passenger cars; practices of the car barn of the Kiev Station
of the Southwest Railroad] Elektrokhimicheskie sposoby obra-
botki aluminievyykh detalei passazhirskikh vagonov; opyt vagon-
nogo depo stantsii Kiev Iugo-Zapadnoi dorogi. Moskva, Vses.
izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1961.
(MIRA 15:1)

44 p.

(Railroads--Cars--Maintenance and repair)

KOGAN, P.M.

Surgery of torsion of the hypertrophic spleen in malaria. Khirurgiya no.6:75 Je '54. (MLRA 7:9)

1. Is shelesnodorozhnoy bol'nitsy Brestskogo otdeleniya Belorusskoy shelesnoy dorogi.

(MALARIA, pathology,

*spleen, hypertrophy & torsion, surg.)

(SPLEEN, in various diseases,

*malaria, hypertrophy & torsion, surg.)

KOGAN, P.M.

Conference on the history of agricultural machinery and equipment.
Mekh. i elek. sots. sel'khoz. 19 no.1:65 '61. (MIRA 14:3)
(Agricultural machinery)

KOGAN, P. S., Cand Tech Sci -- (diss) "High-temperature pyrolysis of the ethane fraction in tubular furnaces for the purpose of obtaining ethylene." Gor'kiy, 1957. 18 pp; (Ministry of Higher Education USSR, Gor'kiy Polytechnic Inst im A. A. Zhdanov); 100 copies; price not given; (KL, 30-60, 138)

KOGAN, P.S.

AUTHORS: Kogan, P. S. and Potolovskiy, L. A. 65-1-6/14
TITLE: High Temperature Pyrolysis of Ethane Fractions to Obtain Ethylene. (Vysokotemperaturnyy piroliz etanovoy fraktsii s tsel'yu polucheniya etilena).
PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958³, Nr.1. pp.25-32. (USSR).

ABSTRACT: Experiments were carried out to ascertain optimal conditions for the pyrolysis of an ethane fraction (which was separated from the gases obtained during the pyrolysis of kerosene at temperatures varying between 800°C - 950°C and at atmospheric pressure) in order to achieve maximum yields of ethylene. The influence of the metal of the tube furnace on the processes of pyrolysis and coke formation as well as the influence of concentration of the propylene and ethane fractions on the degree of conversion of ethane and the yield of ethylene were also investigated. The experiments were carried out on a continuous flow laboratory apparatus. The reaction tubes were made of quartz, chrome-nickel steel 3Х1Т (17.3% Cr, 10.2% Ni) and iron-chrome-aluminium alloy No.2 (23-27% Cr., 4.5-7% Al). The experiments in the quartz tubes were carried out to obtain a standard for comparing

Card 1/4

High Temperature Pyrolysis of Ethane Fractions to Obtain Ethylene. 65-1-6/14

the catalytic action of the metal of the tubes on the pyrolysis process. A diagram of an experimental apparatus is shown in Fig. 1. The tests were carried out at 800°C, 830°C and 900°C, and varying residence times of the products in the reaction zone. For each of the given temperatures the optimal time of maintaining the products in the reaction zone were established and the rate of supply of the ethane fraction at which the highest yield of ethylene could be obtained. Data on the composition of the pyrolysis gases and yields of ethylene at optimal residence times of the products in the reaction zone for each temperature are given in Table 1, which shows that by increasing the temperature of the pyrolysis from 800°C to 900°C the degree of conversion of ethane increases from 64.7% to 73.6% and the concentration of ethylene in the pyrolysis gases increases from 34% to 37.8%/volume. The yield of ethylene for the circulated fraction increases from 51.7% to 62%. Results obtained when carrying out the pyrolysis in a tube made of alloy No. 2 show that at 950°C and at an optimal residence time of 0.017 seconds the degree of conversion of ethane increases up to 87.2% and the

Card 2/4

APPROVED FOR RELEASE: 09/18/2001 65-1-6/14
CIA-RDP86-00513R000723610018-3
High Temperature Pyrolysis of Ethane Fractions to Obtain Ethylene.

yield of ethylene constitutes 62.4 for every 100 litre of processed ethane fraction. Acetylene is also formed in considerable quantities. The residence time of 0.017 seconds causes certain difficulties with regard to heating conditions. The optimal conditions for the pyrolysis of the ethane in tube furnaces have been found to occur at 900°C and a residence time of 0.06 - 0.07 seconds. The tests in the quartz tubes and in the tubes made of alloy No. 2 were carried out for one hour and in the chrome-nickel-steel tubes for less than an hour. Table 1 indicates that in the initial stages of the thermal pyrolysis of the ethane fractions, before the inner surface of the reaction tube becomes covered with coke, the material of the metal tubes acts as a catalyst. The catalytic action of the iron-chrome-aluminium alloy No. 2 is considerably smaller than that of chrome-nickel steel. In the chrome-nickel tube, at the considerably lower rate of conversion of ethane (54.4%), the yield of ethylene is 50.5%, the yield of coke is 10.4% calculated on the used fraction. The catalytic action of the investigated materials of the reaction tubes is shown by the increased rate of de-

Card 3/4

SOV/65-58-12-5/18

AUTHORS: Kogan, P. S. and Potolovskiy, L. A.

TITLE: ~~The Effect of Water Vapour on the Pyrolysis of an Industrial Ethane Fraction When Preparing Ethylene~~
(Izucheniye vliyaniya vodyanogo para na piroliz tekhnicheskoy etanovoy fraktsii s tsel'yu polucheniya etilena)

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, ³Nr 12, pp 22 - 26 (USSR)

ABSTRACT: These investigations were carried out at 900°C, the residence time in the reaction zone being 0.053-0.058 seconds and at atmospheric pressure. The following ratios were determined: ethane fraction:water vapour equalled 1:0.05; 1:0.1; 1:0.25 and 1:0.5. The tests were carried out on a laboratory apparatus in a reaction tube which was made of the iron-chrome-aluminium alloy No.2. The reaction tube had a diameter of 12 mm and its length equalled 900 mm. This was placed into a horizontal tube kiln containing elements made of the same alloy. The apparatus, method of analysis of the initial fraction and of the pyrolysis gases etc. were described by P. S. Kogan (Ref.11).

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SOV/65-58-12-5/16

The Effect of Water Vapour on the Pyrolysis of an Industrial Ethane Fraction When Preparing Ethylene

The effect of the amount of water vapour on the degree of conversion of ethane is shown in Table 1, and the effect of the water vapour on the yield of ethylene and the composition of the pyrolysis gases in Figs. 1 and 2. In these two figures it is also shown that when the ratio vapour-ethane fraction equals 0.05:0.1 the concentration of ethylene in gases does practically not change in comparison to the pyrolysis without water vapour and equals approximately 35% of the volume. On increasing this ratio the concentration of ethylene decreases to 29% of the volume, the content of carbon monoxide increases from 0.2 to 6.51% and of hydrogen from 40 to 45.9%. The acetylene content remains practically constant. Further experiments were carried out when the ratio of vapour-ethane fraction equalled 0.25: & 0.5. These experiments were carried out to decrease the coke formation. Data on the effect of water vapour on coke formation is given in Table 2. The yield of coke is decreased from 0.99 to 0.09%. The dependence of these results on the length of the experiment was tested

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SOV/65-58-12-5/18
The Effect of Water Vapour on the Pyrolysis of an Industrial Ethane
Fraction When Preparing Ethylene

(Table 3) and it can be observed that the composition of the pyrolysis gases and the yield of ethylene are only slightly affected and remain practically constant. There are 3 Tables, 2 Figures and 12 References: 1 Belgium, 4 English, 3 German and 4 Soviet.

Card 3/3

KOGAN, P.S.

Intensification of furnaces used for the pyrolysis of petroleum products. Khim.prom. no.7:634-635 O-N '59. (MIRA 13:5)
(Petroleum refineries--Equipment and supplies)

KHRULEV, M.V.; KOGAN, P.S.; POTOLOVSKIY, L.A.

High temperature pyrolysis of the ethane fraction in pipe furnaces.
Khim.i. tekhn. topl. i masel 5 no.6:13-17 Je '60.

(MIRA 13:7)

(Petroleum—Refining) (Ethane)

KOGAN, P.S.

Industrial methods for the production of ethylene from ethane
in foreign countries. Khim. prom. no. 6:516-520 8 '60.

(MIRA 13:11)

(Ethylene)

(Ethane)

KOGAN, P.S.; SERIKOVA, L.I.

Improvement of the industrial process for the production of
isopropyl sulfates in the manufacture of isopropyl alcohol. Khim.prom.
no.8:580-581 Ag '61. (MIRA 14:8)
(Isopropyl phosphate) (Isopropyl alcohol)

S/064/61/000/011/003/007
B110/B101

AUTHORS: Sanina, N. L., Kogan, P. S., Kazarnovskiy, S. N.

TITLE: Selective hydrogenation of acetylene compounds in the butylene - divinyl fraction of pyrolysis gases from petroleum products

PERIODICAL: Khimicheskaya promyshlennost', no. 11, 1961, 60 - 62

TEXT: The conditions for a continuous selective hydrogenation of acetylene hydrocarbons contained in the industrial butylene - divinyl fraction (C_4) of pyrolysis gases from petroleum products on a stable Ni catalyst were studied. The authors used electrolytic hydrogen and gas containing 43 - 83 mg/m³ of H₂S and 130 - 200 mg/m³ of CO₂ (% by volume) which consisted of n-butylene 32 - 42, isobutylene 29 - 35, divinyl 10 - 17, propylene 0.5 - 5, C₅ and higher hydrocarbons 8 - 11, acetylene compounds 0.04 - 0.14, and a M - kieselguhr catalyst (3.5·3.5 mm tablets). The temperature in the 200-ml hydrogenation column, a steel tube 700 mm long, 20 mm wide, was -15 to -10°C, that in the collecting vessel was -30 to -20°C. ✓

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Selective hydrogenation of...

S/064/61/000/011/003/007
B110/B101

The H_2 pressure was 70 - 100 mm Hg. Before and after hydrogenation, unsaturated compounds in the fraction were determined by 1% Br_2 dissolved in KBr, acetylenes were determined according to C. K. Chavastelon (Compt. rend., 125, 245 (1897)), and divinyl was volume-chromatographically determined. A maximum degree of hydrogenation occurs in the first four reaction hours with a regenerated catalyst since the latter still contains hydrogen absorbed during the reduction. In the second period, the hydrogenation degree remains constant. Then, it decreases since the catalyst is gradually poisoned. With an 83 mg/m³ content of H_2S in C_4 , acetylenes with increased H_2 concentrations were hydrogenated more intensively than divinyl; butylenes, however, were not hydrogenated. With a fraction containing 0.077 - 0.082% by volume of acetylene derivatives, highest selectivity is reached with a C_4 rate of 0.5 hr⁻¹ and a hydrogen - acetylene ratio of 10 - 13 : 1. Hydrogenation of acetylenes reaches ~90%, that of divinyl ~8% which meets requirements of the synthetic rubber industry. With a hydrogen - acetylene ratio of 10 : 1, the degree of

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S/064/61/000/011/003/007
B110/B101

Selective hydrogenation of...

hydrogenation drops from 89 to 26.5% as the rate of C_4 supply increases from 0.5 to 1.5 hr^{-1} . The H_2S sensitivity of the Ni catalyst depends on temperature, pressure, H_2 concentration, and the formation and dispersion degree of the catalyst. The butylene fraction contained 43 - 83 mg/m^3 of H_2S . Hydrogenation was conducted at -10 to -15°C, atmospheric pressure, C_4 supply of 2.0 hr^{-1} , and a hydrogen - acetylene compounds ratio of 10 : 1. The authors used fractions with (a) 83.0 mg/m^3 of H_2S (unpurified), (b) 10.1 mg/m^3 of H_2S (purified in 5% NaOH solution), and (c) 1.7 mg/m^3 of H_2S (purified in 0.5% NaOH and 5% lead acetate solution). With (c), the catalyst activity first remained constant at 98 - 83% for 20 hr, then dropped to 67.8% within the next 5 hr. With (a), the activity dropped to ~68.0% after the first 4 hr. Since catalyst poisoning is reversible, its original activity can be restored. With a 0.5 hr^{-1} rate of supply, optimum for selectivity, acetylene hydrogenation remained constant at ~90% for 39 hr with an H_2S content of 83 mg/m^3 . Thus, an H_2S content of the C_4

Card 3/4

Selective hydrogenation of...

S/064/61/000/011/003/007
B110/B101

fraction $\leq 83 \text{ mg/m}^3$ is admissible under these conditions. There are 4 figures, 1 table, and 17 references: 12 Soviet and 5 non-Soviet. The three references to English-language publications read as follows: G. Hebbard, W. Hunt, US Patent 2359759, 1944; Ch. Welling, H. Hepp, US Patent 2379670, 1945; T. Beuer, US Patent 2391004, 1945. ✓

Card 4/4

SANINA, N.L.; KOQAN, P.S.; KAZARNOVSKIY, S.N.

Selective hydrogenation of acetylenic compounds in the butylene-
bivinyll fraction of gases from the pyrolysis of petroleum products.
Khim. prom. no. 11:802-804 N '61. (MIRA 15:1)
(Butadiene): (Hydrogenation)
(Petroleum products)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610018-3

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610018-3"

SUBBOTIN, A.I.; KOGAN, P.S.; KAZARNOVSKIY, S.N.

Pyrolysis of the butylene fraction in the presence of oxygen.
Khim.i tekhn.topl.i masel 7 no.8:1-6 Ag '62. (MIRA 15:8)

1. Gor'kovskiy politekhnicheskii institut im. Zhdanova.
(Hydrocarbons) (Pyrolysis) (Butene)

S/081/62/000/024/008/052
B117/B186

AUTHORS: Subbotin, A. I., Kogan, P. S., Kazarnovskiy, S. N.

TITLE: High-temperature pyrolysis of butane - butylene fraction for the simultaneous production of acetylene and ethylene

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24.(II), 1962, 723, abstract 24M202 (Gaz. prom-st', no. 6, 1962, 49 - 53)

TEXT: Pyrolysis of commercial butane - butylene fraction separated from gases obtained by pyrolysis of light petroleum products was conducted at a lab plant, using a quartz tube of 2 - 2.5 mm diameter as a reaction vessel. Pyrolysis was conducted at 1050, 1200, 1300, and 1400°C and at a pressure of 60 - 180 mm Hg in the presence of O₂ (volume ratio O₂ : fraction = 0.1 - 0.2). The fraction was diluted (2:1) with electrolytic H₂, not used up during the pyrolysis, to reduce the formation of carbon black and tar. Results: The optimum time during which the gas was kept in the reaction zone and which yielded a maximum amount of C₂H₂ (I) was found to be closely related with specific pyrolysis temperatures. At the Card 1/2

High-temperature pyrolysis of ...

S/081/62/000/024/008/052
B117/B186

above pyrolysis temperatures, C_2H_4 (II) forms sooner than (I); and a maximum amount of (II) is reached after a shorter time of contact than required for maximum yields of (I). If the contact time exceeds the optimum for (II), its concentration decreases, the content of (I) in the pyrolysis gas increasing simultaneously. The maximum yield of (I) was 59.2 % by volume, and the total yield of (I) and (II) was 79.4 % by volume, both obtained from the fraction which was passed through at 1400°C and stayed in the reaction zone for 0.0013 sec. Thereby, the content of (I) in the pyrolysis gas was 15.6 % by volume and that of (II) was 5.3 %. [Abstracter's note: Complete translation.]

Card 2/2

~~KOGAN, P.S.~~; ~~SAHINA, N.L.~~; KAZARNOVSKIY, S.N.; Prinimali uchastiye:
SEDOV, M.P.; KVASOV, A.A.

Removal of acetylenic compounds from the butylene-bivinyll
fraction of gases of petroleum product pyrolysis by the
methode of selective hydrogenation. Khim.prom. no.10:717-719
0 '62. (MIRA 15:12)

(Olefins)

(Acetylene compounds)
(Petroleum-Refining)

SUBBOTIN, A.I.; KOGAN, P.S.; KAZARNOVSKIY, S.N.

High temperature pyrolysis of a butane-butylene fraction
in order to obtain acetylene and ethylene simultaneously.
Gaz. prom. 7 no.6:49-53 '62. (MIRA 17:6)

ACCESSION NR: AT4010610

S/3051/63/000/000/0054/0060

AUTHOR: Sanina, N. L.; Kogan, P. S.; Kazarnovskiy, S. N.

TITLE: Hydrogenation of acetylenic compounds and divinyl in the butylene-divinyl fraction of the pyrolytic gases from petroleum products

SOURCE: Kataliticheskiye reaktsii v zhidkoy faze. Trudy* Vsesoyuznoy konferentsii. Alma-Ata, 1963, 54-60

TOPIC TAGS: hydrogenation, catalytic hydrogenation, acetylene, divinyl, pyrolysis, pyrolytic gas, petroleum pyrolysis, hydrogen sulfide, nickel kieselguhr hydrogenation catalyst

ABSTRACT: Using a Ni-kieselguhr catalyst, the authors studied the hydrogenation of the liquid C_4 fraction of the gases from the pyrolysis of petroleum products, containing 61-77% butylene, 10-17% divinyl, 8-16% C_3-C_5 and higher hydrocarbons and 0.14% acetylenic compounds by volume, in order to determine the effect of the flow rate, hydrogen concentration, duration of service of the catalyst, and admixtures of H_2S (43-83 mg/m^3) and CO_2 (130-200 mg/m^3) on the selectivity and vigor of the hydrogenation of acetylenic compounds and divinyl. Hydrogenation was carried out by the flow method, either under laboratory conditions or on a pilot plant scale. The results showed that the degree of hydrogenation of acetylenic compounds

Cord 1/2

ACCESSION NR: AT4010610

Increased with the relative volumes of hydrogen and substrate, while the hydrogenation of divinyl remained unchanged; depending on the flow rate, up to 90% of the acetylenes and 8% of the divinyl present in the C_4 fraction underwent hydrogenation. The presence of 83 mg/m³ of H_2S was found to reduce the percentage of the acetylenic compounds hydrogenated to 38% after 11.5 hours of operation, but the percentage was increased rapidly by rejuvenation of the catalyst with hydrogen. The yield of hydrogenated acetylenes was not affected when hydrogen was replaced by a methane-hydrogen mixture. In a more detailed study of the mechanism of hydrogenation of mixtures of divinyl and vinylacetylene, the authors studied the hydrogenation of 88% divinyl and 12% n-butylenes in the presence of nickel-kieselguhr and determined the potential of the catalyst along with the kinetics and selectivity of hydrogenation. The catalyst potential was found to vary markedly, but analysis of the products showed preferential hydrogenation of vinylacetylene in the presence of a large excess of divinyl. Orig. art. has: 4 figures.

ASSOCIATION: Gor'kovskiy politekhnicheskii Institut (Gor'kiy Polytechnic Institute)

SUBMITTED: 00

DATE ACQ: 25 Jan 64

ENCL: 00

SUB CODE: CH

NO REF SOV: 008

OTHER: 005

Card 2/2

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610018-3

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723610018-3"

KOGAN, P.Ye.; ZUB, G.G.

Chemical plant for the preparation of soda-soap solutions. Kozh.-
obuv.prom. 7 no.8:27-29 Ag '65. (MIRA 18:9)

KOGAN, P.Ye.; ZUB, G.G.

Modernized drive of the TSP2-1170 centrifuge. Kozh.-obuv. prom.
7 no.6:26-27 Je '65. (MIRA 18:8)

BRAGINSKIY, M.A., inzh.; GISIN, B.I., inzh.; KOGAN, P.Ye., inzh.

Continuous sawing machine for sheep pelts. Nauch.-issl.trudy
Ukr NIIKP no.13:107-113 '62. (MIRA 18:2)

KOGAN, P.Yu.; KHMEL'NITSKAYA, R.S. [Khmel'nyts'ka, R.S.]

Production has to be of excellent quality. Lsh.prom. no.3:65-66 Je - Ag
'62. (MIRA 16:2)

1. Khar'kovskaya mekhovaya fabrika No.1.
(Kharkov—Fur)

KOGAN, R.A., inzh.; LEYTES, L.V., inzh.

Armored bridging reactors. Vest.elektroprom. 33 no.1:38-41
Ja '62. (MIRA 14:12)

(Electric reactors)

BARMOTINA, Z.G.; DUSHKAYA, R.Ye.; ~~KOGAN, R.B.~~; KOMAR', Ye.P.;
KONOHENKO, A.F.; ORLOVA, R.S.

Analysis of chromites. Trudy Ukr.nauch.-issl.inst.met.
no.5:264-272 '59. (MIRA 13:1)
(Chromites) (Metallurgical analysis)

KOGAN, R.

"The Structure Of Lateral Embryos Of Triton Taeniatus As Seen In Oblique Sections Through The Early Gastrula. Laboratory Of The Mechanics Of Development (Chief: Prof. G. A. Shmidt) All-Union Institute Of Experimental Medicine, Moscow." (p. 177) by Kogan, R.

SO: PREDECESSOR OF JOURNAL OF GENERAL BIOLOGY. (Biologicheskii Zhurnal) Vol. VII, 1938 No. 1

[illegible]

KOGAN, R. B.

Kogan, R. B. "Premature infants' mortality rate," Trudy VI Vsesoyuz. s'yezda det. vrachey, posvyashch. pamyati prof. Filatova, Moscow, 1948, p. 124-25

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

KOGAN, R.B.

161. Soviet
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KOGAN, R. B., Dr.

USSR/Medicine - Infectious Diseases Mar/Apr 52

"Joint Meeting of the Moscow Society of Pediatricists and the Moscow Department (Otdel) of Public Health Devoted to Gastrointestinal Diseases, 10, 11 May 1951," S. Shapiro

"Pediatriya" No 2, pp 71-74

In 1950, USSR scientists succeeded in producing exptl dysentery in monkeys (which are resistant to Flexner bacilli) with Sonne bacilli; type-sup immunity in dysentery does not detract from the importance of the problem of immunization, because only Flexner bacilli and Sonne bacilli (the latter since World War II) cause the disease in the USSR [?] the problem of preserving Sonne bacilli in the immunogenic form has been solved; the enteral method of immunization against dysentery is the most promising (Prof V. L. Troitskiy, Corr Mem, Acad Med Sci USSR). Extensive expts demonstrated that treatment of dysentery of children with bacteriophage is without effect (R. B. Kogan, Dr. Med Sci, Inst Pediatrics, Acad Med Sci USSR). In regard to the effect of antibiotics in dysentery, IEM-1 acts on the intestinal syndrome and should be applied in light and medium forms of the disease; synthomycin is effective in acute and toxic forms; albomycin acts on staphylococci causing complications (N.I. Vorotyntseva, Inst of Pediatrics, Acad Med Sci USSR).

PA 207T62

Kogan, R.
KOGAN, R., dotsent

Physical development of children during their first year of life
according to data from examinations made in Moscow in 1956.
Pediatría no.8:67-75 Ag '57. (MIRA 10:12)

1. Is Instituta pediatrii AMN SSSR (dir. - chlen-korrespondent
AMN SSSR prof. O.D.Sokolova-Ponomareva)
(MOSCOW--CHILDREN--GROWTH)

KOGAN, R.B.

Embolism of the right femoral artery as a complication of
hysterectomy. Akush. i gin. 33 no.2:111-112 Mr-Apr '57.

(MLBA 10:6)

1. Iz ginekologicheskogo otdeleniya (zav. R.B.Kogan) rodil'nogo doma
g.Noril'ska (glavnyy vrach K.V.Samoylova).

(HYSTERECTOMY, compl.

embolism in right femoral artery)

(EMBOLISM, etiol. and pathogen.

hysterectomy; causing embolism of right femoral artery)

(ARTERIES, FEMORAL, dis.

embolism, caused by hysterectomy)

KOGAN, R.B.

Method for registering morbidity in children's consultation polyclinics.
Vop.okh. mat. i det. 3 no.5:66-72 8-0 '58 (MIRA 11:11)

1. Iz otdeleniya lechebno-profilakticheskoy pomoshchi detyam
Instituta organizatsii zdravookhraneniya i istorii meditsiny imeni
N.A. Semashko (dir. Ye.D. Ashurkov).

(CHILDREN--DISEASES)

(CLINICS)

(DISEASES--REPORTING)

KOGAN, R.B., dotsent, BIRYUKOVICH, A.A., kand.med.nauk, POPOVA, A.A.

Organization of rural prophylactic observation of nursing infants.
Sov.zdrav. 17 no.6:29-34 Js '58 (MIRA 11:6)

1. Iz Instituta organizatsii zdavookhraneniya i istorii meditsiny
(dir. Ye.D. Ashurkov) i Instituta pediatrii (dir. - prof. O.D.
Sokolova-Ponomareva) AMN SSSR.

(RURAL CONDITIONS

organiz. of prophylactic care for nursing inf.
in rural cond. (Rus))

(CHILD WELFARE
same)

KOGAN, R.B., dots.

Physical development of two-to-three-year-old children. *Pediatrics*
36 no.3:49-59 Mr '58. (MIRA 11:3)

1. Iz organizatsionno-metodicheskogo otdela instituta pediatrii AMN
SSSR (dir.-prof. O.D.Sokolova-Ponomareva)
(MOSCOW--CHILDREN--GROWTH)

KOGAN, R.B., dotsent (Moskva)

Changes in the morbidity of children in Moscow; according to data
from selective investigations during 1951-53 and 1956. Sov. zdrav.
18 no.9:25-32 '59. (MIRA 12:11)

1. Iz otdeleniya lechebno-profilakticheskoy pomoshchi detyam Instituta
organizatsii zdravookhraneniya i istorii meditsiny imeni N.A. Semash-
ko (dir. Ye.D. Ashurkov).
(PEDIATRIC DISEASES statist.)

KOGAN, R.B., dotsent

Some remarks on I.A. Arshavskii's article, "Physiological basis for the classification of newborn infants according to indexes of maturity and immaturity." Vop. okh. mat. i det. 5 no. 5:76-79 S-O '60. (MIRA 13:10)

1. Iz Instituta organizatsii zdoravookhraneniya i istorii meditsiny imeni P.A. Semashko (dir. Ye.D. Ashurkov).
(INFANTS (NEWBORN))

KOGAN, R.B., dotsent (Moskva)

Physical development of children is the basis for the individual
evaluation of the progress of the child. Sov. zdav. 19 no.6:45-51
'60. (MIRA 13:9)

(CHILDREN--GROWTH)

KOGAN, R.B.

Infant mortality (as a part of perinatal mortality). Vop. okh.
mat. 1 det. 6 no.10:77-82 0 '61. (MIRA 14:11)

1. Iz otdela okhrany zdorov'ya detey Instituta organizatsii
zdravookhraneniya i istorii meditsiny imeni N.A.Semashko (dir. -
Ye. D.Ashurkov [deceased]) Ministerstva zdravookhraneniya SSSR.
(INFANT--MORTALITY)

KOOAN, R.B.; SHISHKOVA, V.F. (Moskva)

Rationalization of medical service for school children. Sov. zdav.
21 no. 5:43-48 '62;

(MIRA 15:5)

(SCHOOL HYGIENE)

KOGAN, R.B., dotsent; LITVINOVA, M.G. (Moskva)

Determination of the need for specialized care for children. Sov.
zdrav. 21 no.8:20-25 '62. (MIRA 15:11)
(PEDIATRICS)

KVIRIKADZE, V.V., starshiy nauchnyy sotrudnik; KOGAN, R.D., klinicheskiy
ordinator

Effect of reserpine on phagocytosis. Trudy Gos.nauch-issl.
inst.psikh. 25:737-744 '61. (MIRA 15:12)

1. Mikrobiologicheskaya laboratoriya (zav. - kand.med.nauk
V.V.Kvirikadze) i klinika sosudistyykh psikhozov (zav. - prof.
V.M.Banshchikov) Gosudarstvennogo nauchno-issledovatel'skogo
instituta psikiatrii Ministerstva zdavookhraneniya RSFSR.
(RESERPINE) (PHAGOCYTOSIS)

KVIRIKADZE, V.V.; MENDELEYEVA, M.A.; PKHALADZE, O.G.; KOGAN, R.D.

Effect of aminazine on the the concentration of specific typhoid fever antibodies in the bodies of rabbits. Trudy Gos.nauch.-issl.inst.psikh. 27:261-266 '61. (MIRA 15:10)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut psikhatrii Ministerstva zdravookhraneniya RSFSR. Dir. - prof. V.M.Banshechikov. Mikrobiologicheskaya laboratoriya. Zav. - kand.med.nauk V.V. Kvirikadze.

(CHLORPROMAZINE) (ANTIGENS AND ANTIBODIES)
(TYPHOID FEVER--PREVENTIVE INOCULATION)

KVIRIKADZE, V.V.; KOQAN, R.D.

Study of the antimicrobic properties of tofranil; an experimental investigation. Trudy Gos.nauch.-issl.inst.psikh. 35:240-248 '62.
(MIRA 16:2)

1. Otdeleniye immunologii (sav. otdeleniyem - kand.med.nauk V.V. Kvirikadze) Gosudarstvennogo nauchno-issledovatel'skogo instituta psikiatrii.

(IMIPRAMIN) (BACTERIA, EFFECT OF DRUGS ON)

KOGAN, R.D.; KVIRIKADZE, V.V.; TABAKH, R.Ya.

Study of the antimicrobial properties of stelazine. Vop.klin.,
patog. i lech. shiz. no.1:70-71 '64. (MIRA 18:5)

1. Immunobiologicheskaya laboratoriya (zav. - kand.med.nauk
V.V.Kvirikadze) Gosudarstvennogo nauchno-issledovatel'skogo
instituta psikiatrii Ministerstva zdravookhraneniya RSFSR.

ACC NR: AP6032247

SOURCE CODE: UR/0016/66/000/009/0081/0084

AUTHOR: Kvirikadze, V. V.; Kogan, R. D.

ORG: Moscow Scientific Research Institute for Vaccine and Sera im. Mechnikov
(Moskovskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok);

Scientific Research Institute for Psychiatry, Ministry of Health, RSFSR (Nauchno-
issledovatel'skiy institut psi'hiatrii Ministerstva zdravookhraneniya RSFSR)

TITLE: Using the passive hemagglutination reaction for serodiagnosis of
toxoplasmosis infections

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 9, 1966, 81-84

TOPIC TAGS: ~~medicinal~~, ~~medical research~~, ~~human disease~~, toxoplasmosis, ^{infection} disease,
diagnostic medicine

ABSTRACT: Complement fixation and passive hemagglutination reactions for
the serodiagnosis of toxoplasmosis were compared. The simpler
passive hemagglutination reaction correlated 100% with the
complement fixation test and is recommended for diagnosis of
this disease. [WA-50; CBE No. 12]

SUB CODE: 06/ SUBM DATE: 27Jun65/ ORIG REF: 002/ OTH REF: 006/

Card 1/1

IMC: 616.993.192-078.734

ACC NR: AP6032247

SOURCE CODE: UR/0016/66/000/009/0081/0084

AUTHOR: Kvirikadze, V. V.; Kogan, R. D.

ORG: Moscow Scientific Research Institute for Vaccine and Sera im. Mechnikov

(Moskovskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok);

Scientific Research Institute for Psychiatry, Ministry of Health, RSFSR (Nauchno-issledovatel'skiy institut psikhiiatrii Ministerstva zdravookhraneniya RSFSR)

TITLE: Using the passive hemagglutination reaction for serodiagnosis of toxoplasmosis infections

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 9, 1966, 81-84

TOPIC TAGS: ~~infectious~~, ~~medical research~~, ~~immunology~~, toxoplasmosis, ^{infectious} disease, diagnostic medicine

ABSTRACT: Complement fixation and passive hemagglutination reactions for the serodiagnosis of toxoplasmosis were compared. The simpler passive hemagglutination reaction correlated 100% with the complement fixation test and is recommended for diagnosis of this disease. [WA-50; CBE No. 12]

SUB CODE: 06/ SUBM DATE: 27Jun65/ ORIG REF: 002/ OTH REF: 006/

Card 1/1

UDC: 616.993.192-078.734

EYNIS, V.L.; TUGANOVA, V.Ye.; KOLOSOVSKAYA, V.P.; KOGAN, R.E.

Diagnosis in clinically cured pulmonary tuberculosis. Probl. tub.
41 no.10:21-26 '63. (MIRA 17:9)

17(2)

SOV/177-58-9-15/51

AUTHORS:

Shul'zhenko, V.M., Colonel of the Medical Corps, Candidate of Medical Sciences; Enkler, Z.K.; Kuz'mina, Yu.T., Lieutenant-Colonel of the Medical Corps; and Kogan, R.F.

TITLE:

The Study of the Etiological Characteristics of Dysentery

PERIODICAL:

Voyenno-meditsinskiy zhurnal, 1958, Nr 9, pp 53-55 (USSR)

ABSTRACT:

The article analyzes the data of the etiological structure of dysentery in soldiers, hospitalized in the years 1951/53, in the civilian population during the same years and in other soldiers. The changes in the etiological structure are given in tables. The author came to the following conclusions: 1) on the whole, the etiological characteristic of dysentery in soldiers who were treated in a hospital during 1951/53, corresponds with past data; 2) there is no epidemiological connection between soldiers and civilians who lived in the same town during 1951/53; 3) for a full epidemiological analysis of the structure of dysentery,

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SOV/177-58-11-15/50

The Diagnosis of Remote Sequela of Closed Injuries of the Cerebrum in the Practice of Experts and of Dispensaries

the diagnosis of remote sequela of closed cerebral injuries. Based on material of mass investigations (more than 5,000), the relative evaluation of the frequency of microsymptoms in persons, who sustained a closed cerebral injury in the past shows that the oculo-motor nerve is most frequently injured (70%). The author suggests a method according to which the person under investigation has to fix the eyes at a motionless subject for 8-10 seconds in order to reveal the weakness of the muscles that innervate the oculo-motor nerves. In patients who sustained closed cranial traumas, the look declines from the fixing object to one side or the other. Thus, the symptom of a "defect of the fixation of the look" permits to recognize a cranial trauma before the anamnesis has been established. One case report is given.

Card 2/2

KOGAN, R.L. (Vladimirskaia oblast')

Work of the receiving department in rural district hospitals,
Zdrav. Ros.Fedbr. 7 no.5:41-42 My'63. (MIRA 16:6)
(LYAKHI DISTRICT--HOSPITALS, RURAL)

KOGAN, R. L.

44
45

PHASE I BOOK EXPLOITATION

SOV/6025

Soveshchaniye po ustalosti metallov. 2nd., Moscow, 1960.

Tsiklicheskaya prochnost' metallov; materialy vtorogo soveshchaniya po ustalosti metallov, 24 - 27 maya 1960 g. (Cyclic Metal Strength; Materials of the Second Conference on the Fatigue of Metals, held May 24 - 27, 1960) Moscow, Izd-vo AN SSSR, 1962. 338 p. Errata slip inserted. 2000 copies printed.

Resp. Ed.: I. A. Odintsov, Corresponding Member of the Academy of Sciences of the USSR; Ed. of Publishing House: A. N. Chernov; Tech. Ed.: A. P. Guseva.

PURPOSE: This collection of articles is intended for scientific research workers and metallurgists.

COVERAGE: The collection contains papers presented and discussed at the second conference on fatigue of metals, which was held at the Institute of Metallurgy in May 1960. These papers deal with the nature of fatigue fracture, the mechanism of formation

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Cyclic Metal Strength (Cont.)

SOV/6025

and growth of fatigue cracks, the role of plastic deformation in fatigue fracture, an accelerated method of determining fatigue strength, the plotting of fatigue diagrams, and various fatigue test methods. New data are presented on the sensitivity of high-strength steel to stress concentration, the effect of stress concentration on the criterion of fatigue failure, the effect of the size factor on the strength of metal under cyclic loads, and results of endurance tests of various machine parts. Problems connected with cyclic metal toughness, internal friction, and the effect of corrosion media and temperature on the fatigue strength of metals are also discussed. No personalities are mentioned. Each article is accompanied by references, mostly Soviet.

TABLE OF CONTENTS:

NATURE OF FATIGUE FRACTURE

Oding, I. A. Diffusionless Mechanism of Formation and Growth of a Fatigue Crack
Card 2/2

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Cyclic Metal Strength (Cont.)	SOV/6025	
Ivanova, V. S. Structural-Energetic Theory of Metal Fatigue		11
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<u>Ezlikh, L. B. Mechanism of Fatigue Fracture Under Contact Load</u>		37
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S/180/62/000/003/008/016
E193/E192

AUTHOR: Kogan, R.L. (Odessa)

TITLE: A study of curves comprising a fatigue fracture diagram

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Metallurgiya i toplivo, no.3, 1962, 78-80

TEXT: The results of several investigations have shown that fatigue fracture is preceded not only by the onset of brittleness and formation of microscopic cracks, but also by an increase in strength of the material. The object of the present investigation was to correlate these three processes. To this end a series of fatigue tests was carried out on Armco iron specimens (both smooth and notched) subjected to cyclic bending in a single plane. In addition to constructing the conventional S/N curve, the distribution of microhardness along the test piece was determined after each test followed by metallographic examination. Typical data obtained in this manner are reproduced in Fig.1, where microhardness (H_u , kg/mm²) is plotted against the distance (l , mm) ✓
Card 1/1

A study of curves comprising a ...

S/180/62/000/003/008/016
E193/E192

from the fixed end of the specimen, tested to fracture at $N = 2.7 \times 10^5$ cycles under a stress of 25.2 kg/mm^2 ; the horizontal, broken line represents the initial hardness, and the cross-hatched part of the diagram indicates the region in which slip lines were observed after fracture. Similar graphs were constructed for specimens tested under various stresses, and were used to determine the minimum values of stress at which both softening and hardening of the metal took place. The integrated results of these tests are reproduced in Fig.2, showing the following curves, plotted (for smooth Armco iron specimens) in $\sigma (\text{kg/mm}^2)/\log N$ (cycles) coordinates: 1 - the conventional fatigue curve; 2' - experimental curve representing the decrease in strength of the metal (circles indicate the values of σ and N at which first slip lines appeared, crosses indicating the values at which hardness decreased below the initial level); 2 - a theoretical curve representing the formation of submicroscopic cracks; 3' - experimental curve representing the beginning of the increase in hardness of the metal; 3 - the same curve constructed on the basis of calculated values of N_k and β .

Card 2/0 4

A study of curves comprising a ...

S/180/62/000/003/008/016
E193/E192

[Abstractor's note: N_k is the number of cycles at which hardening takes place in a specimen tested under a stress equal to the cyclic elastic limit σ_u ; the meaning of β is not given]. Several conclusions were reached. 1) The experimental results of the present investigation are in good agreement with those obtained analytically with the aid of cyclic constants α , β and N_k , calculated on the basis of the hypothesis of similarity between fatigue fracture and mechanism of melting of metals. 2) On the basis of the new fatigue curve constructed by the author and relating the increase in hardness to the stress and number of cycles, a new fatigue criterion has been postulated, namely, the critical number of cycles, N_k^Y at which a metal subjected to fatigue under a stress equal to its fatigue limit begins to harden. 3) The new curve ("fatigue hardening curve") can be constructed analytically from the calculated values of β and N_k , and can be used also to determine more accurately the optimum treatment (stress, number of cycles) applied to increase the fatigue limit of small, smooth test pieces; these optimum conditions are represented by points

Card 3/04

A study of curves comprising a ... S/180/62/000/003/008/016
E193/E192

situated above the "fatigue hardening" curve, but below the
curve representing the formation of submicroscopic cracks
(i.e. between curves 2 and 3 in Fig.2).
There are 3 figures.

SUBMITTED: May 20, 1961

Card 4/84

S/126/62/013/005/017/031
E193/E483

AUTHOR: Kogan, R.L.

TITLE: A microscope study of plastic deformation and fracture of specimens subjected to cyclic bending in one plane

PERIODICAL: Fizika metallov i metallovedeniye, v.13, no.5, 1962, 750-754

TEXT: The object of the present investigation was to study work-hardening and loss of strength of metals under cyclic loads. To this end, specimens of the shape shown in Fig.1 were subjected to cyclic bending in one plane, hardness measurements being taken after each test across the entire length of the fractured specimen, the assumption being that the manner in which hardness of the most highly stressed region changed during the fatigue test could be inferred from these data which were supplemented by metallographic examination of two preliminarily polished, mutually perpendicular faces of the specimens (sides A and B, Fig.1), carried out at regular intervals during the test; this Card 1/14

S/126/62/013/005/017/031
E193/E483

A microscope study of plastic ...

examination included measurement of the length l (on the side A) and depth h (on the side B) of the region where slip lines had been observed. Before microhardness measurements were taken, scratches were inscribed in side A of each specimen dividing it into zones with different microstructures. Microhardness of 100 grains along each scratch was then measured and microhardness frequency curves were constructed for each zone. The experiments were carried out on annealed copper and steel 10, cold-worked steel 10 and other metals. Typical results obtained on annealed steel 10 specimens, tested under a load producing a deflection $f = 2.3$ mm and causing fracture of the specimen after $N = 2.4 \times 10^5$ cycles, are reproduced in Fig.2, 4 and 6. In Fig.2, the hardness frequency m is plotted against microhardness values (H , kg/mm²), various curves relating to zones of the specimen whose location is indicated in the insert at the top of Fig.2. In Fig.4, microhardness (H , kg/mm²) is plotted against the distance (mm) from the fixed end of the fatigue test piece, various numbers indicating different zones of the specimen, and the horizontal line at $H = 100$ representing microhardness of

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A microscope study of plastic ...

S/126/62/013/005/017/031
E193/E483

the specimen before the test. Finally, in Fig.6, the length (mm) and depth (h, mm) of the region characterized by the formation of slip lines are plotted against the percentage of N, where N is number of cycles to fracture. The results obtained indicated that, in the case of annealed specimens, the most heavily stressed region strain-hardened first in the initial stages of fatigue, this effect spreading later to the adjacent, less heavily stressed regions. In the latter stages, the process was reversed and the metal lost its hardness, first in the most heavily stressed, and later in the adjacent regions. Slip lines appeared only in those regions where the decrease in hardness had taken place. The increase in hardness in the initial stages of fatigue fracture does not necessarily have to take place since no evidence of this phenomenon was found in the work-hardened steel 10 specimens. Using the technique described, the present author was able to pinpoint the moment of the formation of the first fatigue cracks in the critically stressed region of the test piece, this moment coinciding with the moment of localization of the process of plastic deformation. There are

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A microscope study of plastic ...

S/126/62/013/005/017/031
E193/E483

7 figures and 1 table.

ASSOCIATION: Odesskiy politekhnicheskii institut
(Odessa Polytechnical Institute)

SUBMITTED: March 6, 1961 (initially)
August 14, 1961 (after revision)

Card 4/8 4

8/137/62/000/007/070/072
A160/A101

AUTHORS: Zemskov, G. V., Kogan, R. L., Smekh, Ye. V., Zdanovich, V. L.,
Gushchin, L. K., Kostenko, A. V.

TITLE: The problem of hardening steel in an ultrasonic field

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 7, 1962, 109, abstract 71740
("Nauchn. zap. Odessk. politekhn. in-t", 1962, 37, 41 - 44)

TEXT: The investigation of the effect of an ultrasonic field on the process of hardening was carried out with Y 8 (U8) and X 12 Φ (Kh12Φ) steels. For comparison reasons, experiments were made by quenching these steels in water with and without the ultrasonic field. The U8 steel was hardened from 800 - 820°C, the intensity of the ultrasonic field was within 1 - 2 va/cm², and the frequency of the ultrasonic oscillations - 23 kilocycles. The Kh12Φ steel was quenched from 1,130°C in oil or in water with and without the action of the ultrasonic field. The subsequent triple tempering was carried out at 510 - 530°C for 1 hour and the steel cooled in the open air. It was determined that the hardenability and the hardness of the U8 steel increase (Rc increases from 37 - 42 to 54 - 60 in a

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S/137/62/000/007/070/072

A160/A101

The problem of hardening steel in an ultrasonic field

layer with a depth of 1.5 - 2 mm) when quenching in an oil bath with the use of ultrasound. This applies for samples with a diameter of up to 20 mm. The use of ultrasonic oscillations during the quenching of the Kh12F steel from 1,130°C and the cooling in oil with a subsequent triple tempering increases the micro-hardness by 30 kg/mm². There are 6 references.

A. Babayeva

[Abstracter's note: Complete translation]

Card 2/2

KOGAN, R.L. (Odessa)

Studying the lines of fatigue failure diagrams. Izv. AN SSSR. Otd. tekh.
nauk. Met. i topl. no.3:78-80 My-Je '62. (MIRA 15:6)
(Metals--Fatigue)

ZEMSKOV, G.V.; KOGAN, R.L.

Isothermal hardening of gray cast iron. Nauch.zap.Od.politekh.inst.
26:38-43 '60. (MIRA 15:5)
(Cast iron--Hardening)

KOGAN, R.L.

Microscopic investigation of plastic deformations and failures
under cyclic bending of specimens in one plane. Fiz. met.
i metalloved. 13 no.5:750-754 May '62. (MIRA 15:6)

1. Odesskiy politekhnicheskii institut.
(Steel—Metallography) (Deformations (Mechanics))

KOGAN, R.L.

Machine for investigating fatigue destruction. Zav.lab. 28
no.8:1006-1007 '62. (MIRA 15:11)

1. Odesskiy politekhnicheskiy institut.
(Fatigue testing machines)

S/124/63/000/001/069/080
D234/D308

AUTHOR: Kogan, R.L.

TITLE: Regularities of spreading of plastic deformation in specimens during cyclic bending

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 1, 1963, 74, abstract 1V579 (In collection: Tsiklich. prochnost' metallov. M., AN SSSR, 1962, 54-60)

TEXT: The author investigated the change in microstructure of specimens made of steel and cast iron during cyclic plane bending. Special features of development of gliding lines and microcracks were observed. It is established that for 10-50% durability the plastic deformation becomes localized and the instant of localization coincides with the instant of appearance of microcracks. The author considers the effect of stress gradient on the ratio of depth on the deformed zone and its length.

[Abstracter's note: Complete translation]

Card 1/1

L 14993-66 EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/TTC(m)-26

ACC NR: AP5028569 (N)

SOURCE CODE: UR/0126/65/020/005/0788/0790

IJP(c) MJW/JD/HW/JG/WB/EM/MJW(CL)

AUTHOR: Zemskov, G. V.; Konev, V. N.; Kogan, R. L.; Dombrovskaya, Ye. V.; Kostenko, A. V.

ORG: Odessa Polytechnic Institute (Odesskiy politekhnicheskiy institut); Ural gosuniversitet im. A. M. Gor'kiy (Ural'skiy gosuniversitet)

TITLE: Oxidation of nickel alloys in atmospheres containing sulfur

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 5, 1965, 788-790

TOPIC TAGS: nickel alloy, metal oxidation, metal surface, metal scaling, metallographic examination, x ray analysis

ABSTRACT: The effect of oxidation of ZhC6-K nickel alloy in sulfur atmospheres was studied. It had been previously observed that in such environments the heat resistance of nickel decreased as a result of the formation of nickel sulfides with low melting points; in addition, these sulfides form eutectics with nickel and its oxides. Chromium is known to retard this sulfide formation but does not prevent it. For the experiments, samples were cut from turbine blades which had operated for

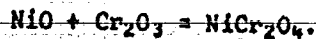
UDC: 669.24 : 620.193.4

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L 14993-66

ACC NR: AP5028569

3
various periods at temperatures of 800-900°C in an atmosphere containing gaseous sulfur. Metallographic, x-ray and chemical analysis were performed. The scale was removed from the blades and cylindrical powder samples were made for the x-ray study in which $K_{\alpha, \beta}$ Cr radiation was used. The nickel content was determined by the weight method while the sulfur content was established by the iodometric method. A microstructure of the base metal and of the blades in which the surfaces of the blades revealed scale formation is shown. Lowered microhardness was the result of alloying elements diffusing out to the grain boundaries. Chemical analysis of the layer showed a 1% sulfur content. The x-ray analysis of the layer showed it to have a crystal lattice of the NiO type and a phase of the spinel type. The mechanism for the formation of oxide layers in sulfur containing atmospheres was proposed for the alloy ZhC6-K. The spinel phase is formed from the following reaction:



This phase can also alloy with other elements in the metal. Once the full scale forms, internal oxidation occurs. The oxygen diffuses faster along the grain boundaries and forms Cr_2O_3 due to the greater affinity of Cr for oxygen. In the

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ACC NR: AP5028569

center of the grain the Cr content becomes depleted, and the remaining nickel is left to form NiO. The solution of sulfur in the NiO lattice contributes to the increased oxidation of the alloy since the sulfur intensifies the reaction. The scale structure finally becomes that of NiO with sulfur dissolved within and the spinel NiCr_2O_4 . Orig. art. has: 3 figures.

SUB CODE: 11,20/

SUBM DATE: 19Jan65/

ORIG REF: 003/

OTH REF: 002

OC
Card 3/3

1. 14573-66 EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b) IJP(c) MJW/ED/HW/MB/MJH(CL)

ACC NR: AP6004167 (N)

SOURCE CODE: UR/0114/66/000/001/0034/0035

AUTHOR: Zemakov, G. V. (Candidate of technical sciences; Docent); Kozan, R. L. (Candidate of technical sciences; Docent); Kostenko, A. V. (Engineer); Khmelevskaya, M. Ye. (Engineer)

ORG: none

TITLE: Titanium-silicon and titanium-aluminum coatings of nickel-base alloy

SOURCE: Energomashinostroyeniye, no. 1, 1966, 34-35

TOPIC TAGS: nickel, nickel alloy, nickel alloy coating, titanium silicon coating, titanium aluminum coating, coating oxidation, oxidation resistance, oxidation resistant coating, coating corrosion, gas corrosion, corrosion resistance/ZhS6-K nickel alloy

ABSTRACT: An attempt has been made to improve the resistance of ZhS6-K nickel-base alloy to gas corrosion at 850—900C in an atmosphere containing sulfur and sea-water vapors by means of titanium-silicon and titanium-aluminum diffusion coatings. Coating was done by pack cementation with coating elements used simultaneously or serially. It was found that in simultaneous impregnation, the depth of the diffusion layer decreases with an increase of titanium in the mixture. At a titanium content of 90—95%, mainly titanium diffuses while at a titanium content of 30—35%, silicon or aluminum diffuse. Best results in simultaneous impregnation were obtained at 900C

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UDC: 669.65:669.295.001.5

L 14573-66

ACC NR: AP6004167

with a mixture containing 60—80% Ti. The stepwise impregnation produced better results than the simultaneous impregnation, especially when silicon or aluminum were applied first. Both silicon-titanium and aluminum-titanium coatings greatly increased the resistance of ZhS6-K alloy to gas corrosion. In tests at 900C, after 15 hr the uncoated alloy was corroded to a depth of 1000—1500 μ and coated alloy to a depth of only 100 μ . Orig. art. has: 4 figures. [ND]

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 002/ ATD PRESS: 4169

FW
Card 2/2

ACC NR: AP6030864 (c)/EWP(m)/T/EWP(t)/ JUP(c) ID/RW/JG/WB/JH SOURCE CODE: UR/0365/66/002/005/0576/0580

AUTHOR: Zemskov, G. V.; Kogan, R. L.; Dombrovskaya, Ye. V.; Kostenko, A. V.; Shevchenko, I. M.; Koss, Ye. V.; Fadeyeva, E. V.; Khmelevskaya, M. Ye.; Mikotina, N. F.

ORG: Odessa Polytechnical Institute (Odesskiy politekhnicheskiy institut) 62
B

TITLE: Protective diffusion coatings of nickel alloy 27

SOURCE: Zashchita metallov, v. 2, no. 5, 1966, 576-580

TOPIC TAGS: alloy, nickel chromium alloy, aluminum containing alloy, titanium containing alloy, tungsten containing alloy, alloy protective coating, alloy corrosion resistance, diffusion coating alloy, alloy oxidation resistance/ZhS6-K alloy 16

ABSTRACT: A series of diffusion coatings were tested for protection of ZhS6-K nickel base alloy (0.13—0.20% carbon, 10.5—12.5% chromium, 5—6% aluminum, 2.5—3% titanium, 2.5—3% tungsten, 4.5—5.5% molybdenum, 0.13—0.20% boron) against gas corrosion in a mixture of products of sulfurous fuel combustion and sea water vapors after all attempts to improve alloy oxidation resistance by alloying failed. Alloy specimens were diffusion coated with one or two elements used simultaneously or one after the other. The coating was done by a pack cementation at 900—1000C for 10 hr. Chromium, aluminum, silicon, titanium, boron, cerium, beryllium and magnesium were used as single-element coatings. Chromium with titanium, silicon, aluminum, or boron; aluminum with boron, cerium, or titanium; titanium with silicon or boron; manganese with boron;

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UDC: 621.793.4

L 44077-66

ACC NR: AP6030864

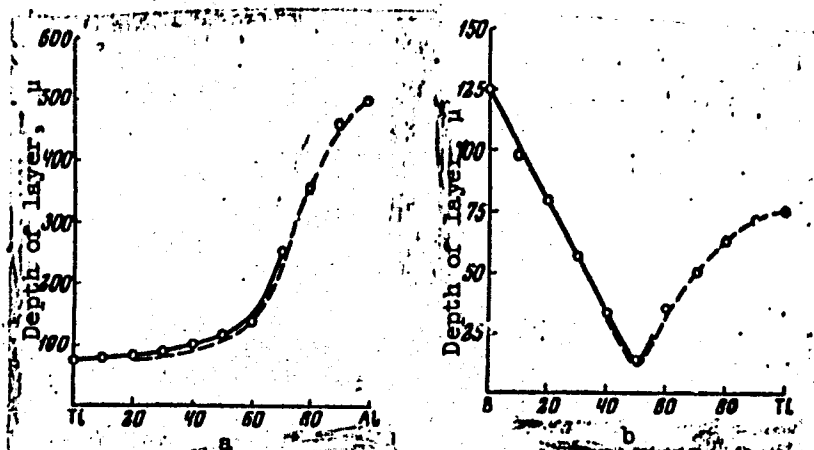


Fig. 1. Dependence of the change of the diffusion layer depth upon the content of elements in the mixture

a - Aluminum-silicon impregnation; b - boron-titanium impregnation.

a

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L 44077-66

ACC NR: AP6030864

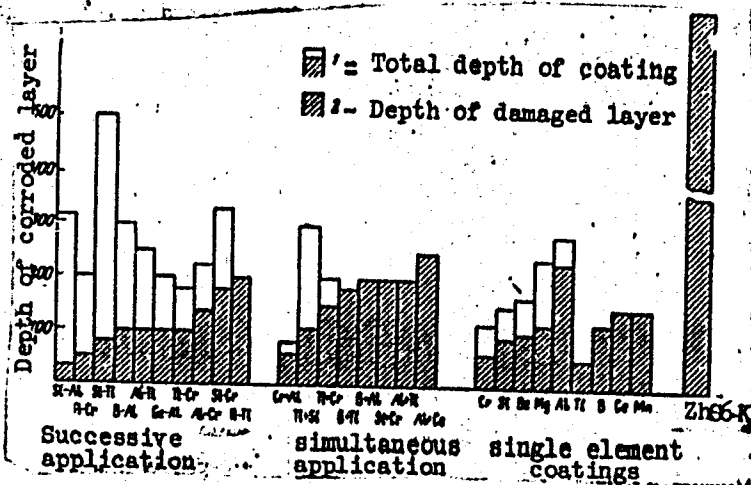


Fig. 2. Depth of corrosion in coated and uncoated ZhS6-K alloy.

cerium with boron; and silicon with aluminum were used for binary coatings. Corrosion tests were done in combustion products containing 0.74% and 0.11% sea water at 900C for 15 hr. It was found that all the coatings tested have a higher corrosion resistance than the uncoated alloy (see Fig. 1). Binary coatings protect the alloy more efficiently than single-element coatings, especially with the consecutive method of

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L 44077-66

ACC NR: AP6030864

application. Coatings obtained by this method have a higher concentration of elements and a more uniform structure of the surface layer than the coatings applied by other methods. Orig. art. has: 5 figures. [ND]

SUB CODE: 11, 13/ SUBM DATE: 13Jul65/ ATD PRESS: 5077

sum
Card 4/4

L 3840-66 EWT(m)/EWP(e)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6024528

SOURCE CODE: UR/0148/66/000/007/0138/0142

AUTHOR: Zemskov, G. V.; Dombrovskaya, Ye. V.; Kogan, R. L.; Shevchenko, I. M.

ORG: Odessa Polytechnic Institute (Odesskiy politekhnicheskiy institut)

TITLE: Cementation with boron and titanium

SOURCE: IVUZ. Chernaya metallurgiya, no. 7, 1966, 138-142

TOPIC TAGS: nickel alloy, heat resistant alloy, boron, titanium, alloy boronizing, alloy titanizing, alloy diffusion coating, iron, iron diffusion coating, metal diffusion, alloy composition, metal coating/ ZhS6-K heat resistant alloy

ABSTRACT: The structure of diffusion layers in ZhS6-K heat-resistant alloy and commercial-grade iron, obtained by pack cementation at 900—1050C in mixtures of boron and titanium, or boron carbide and borax, or in titanium alone, has been investigated. The thickness, composition, and microhardness of diffusion layers produced in mixtures of titanium and boron varied widely depending on the boron titanium ratio in the mixture (see Fig. 1). In mixtures containing 37—57% titanium for ZhS6-K alloy or 37% titanium for iron, the diffusion rate of boron and titanium is roughly the same. The diffusion layer in ZhS6-K alloy produced in a 50—50 mixture of boron and titanium consisted of a solid solution of boron and titanium in nickel with inclusions of titanium boride on the very surface and at the metal-diffusion layer interface.

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UDC: 669.14.018.45:669.781:669.295:621.785.53

KOGAN, R.M.

49-58-2-8/18

AUTHOR: Kogan, R.M.

TITLE: Some Integral Regularities in the γ -field Distribution in Laminated Media (Nekotoryye integral'nyye zakonomernosti raspredeleniya gamma-polya v sloistyykh sredakh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 2, pp.225-234 (USSR)

ABSTRACT: In real conditions geological formations often occur in the form of extended layers. The γ -field distribution in a system of such layers is best discussed in terms of a model such as a laminated medium. The following assumptions are made: (1) γ -rays interact with atoms or elementary particles in the substance so that these may be considered as the centres of interaction of the γ -rays with the substance; (2) the absorbing medium is taken as an ensemble of centres of interaction of a given kind, the volume density of which is described by some function of space coordinates; (3) between successive interactions of a γ -ray its trajectory is a section of a straight line; (4) the full trajectory of the γ -ray in the absorbing medium may be taken as a

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49-58-2-8/18

Some Integral Regularities in the γ -field Distribution in Laminated Media.

broken straight line. On the basis of the simple assumptions about the interaction of γ -rays with matter, properties of γ -ray trajectories are established as well as properties of integral parameters of the γ -field for a point source in laminated media. Expressions are derived which can be used to calculate for a laminated medium the integral parameters of point, volume and plane-distributed sources from known angular spectral characteristics of a γ -field for a point source in a uniform medium. An estimate is made of "secondary effects" such as the formation of Compton electrons, photoelectrons etc. The regularities established can be used in aerial γ -surveys and similar work. There are no figures or references.

ASSOCIATION: Academy of Sciences of the USSR, Institute of Applied Geophysics (Akademiya nauk SSSR, Institut prikladnoy geofiziki)

SUBMITTED: December 24, 1956.

AVAILABLE: Library of Congress.

Card 2/2

PHASE I BOOK EXPLOITATION

Всесоюзная научно-техническая конференция по применению радиоактивных и стабильных изотопов в изучении и исследовании в науке, Москве, 1957

Polubnyaya izotopov. Mozhno nye gamma-izotopi. Radiometriya i dosimetriya) trudy konferentsii... (Isotope Production. High-energy Gamma-Radiation Facilities. Radiometry and Dosimetry. Transactions of the All-Union Conference on the Use of Radiative and Stable Isotopes and Radiation in the National Economy and Science) Moscow, Izd-vo AN SSSR, 1956. 293 p. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR; Glavnoye upravleniye po
ispol'zovaniyu atomoy energii SSSR.

Editorial Board: Frelow, Ya.S. (Resp. Ed.), Zhuravskoy, N.N. (Deputy Resp. Ed.), Agladov, K.K., Alifanov, B.A., Bochkarev, V.V., Lezhinskii, N.I., Milner, T.F., Smilgits, V.I., and Popova, G.I. (Secretary); Tech. Ed.: Mavishkov, E.D.

REMARKS: This collection is published for scientists, technologists, persons engaged in medicine or medical research, and others concerned with the production and/or use of radioactive and stable isotopes and radiation.

COVERAGES: Thirty-eight reports are included in this collection under three main subject divisions: 1) production of isotopes 2) high-energy gamma-radiation facilities, and 3) radiometry and dosimetry.

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Prelov, Yu.S.; V.V. Zashcharyev, and Ye.Ye. Kallish. Development of
Isotope Production in the Soviet Union
This report is a general survey of production methods,
apparatus, raw materials, applications, investigations
and future prospects for radio isotopes in the Soviet Union.

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Lantsov, M.P., V.Ye. Masoylov, and O.A. Kuznetsov.
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Kogan, R.M.

AUTHORS: Kogan, R.M. and Pereyaslova, N.K.

120-4-5/35

TITLE: Application of a Film-scintillator System for Recording of Gamma Radiation (Primeneniye sistemy fotoplenka-stsintilliruyushchiy kristall dlya registratsii gamma-izlucheniya)

PERIODICAL: Priory i Tekhnika Eksperimenta, 1957, No.4, pp. 25 - 27 (USSR).

ABSTRACT: The application of a photographic film to the detection of gamma rays is well known. The present authors were confronted with the problem of measuring weak gamma ray intensities and also the variation of these intensities with time. The conventional photographic detection was found to be insufficiently sensitive. Consequently, the following system is adopted. A sodium iodide scintillator of the well type was covered with a film. Thus, the incident gamma radiation produces a blackening of the film both directly and also via the scintillations produced in the crystal. If the gamma ray intensity varies with time, it may be studied by passing a film continuously over the crystal. In this way, one obtains the gamma ray intensity as a function of time. It is shown that this system Card 1/2 is 10^3 - 10^4 as sensitive as the conventional film detector.

Application of a Film-scintillator System for Recording of Gamma
Radiation. ^{120-4-5/35}

There are 5 figures and 2 Slavic references.

ASSOCIATION: Institute of Applied Geophysics of the Ac.Sc. USSR.
(Institut prikladnoy geofiziki AN SSSR)

SUBMITTED: February 19, 1957.

AVAILABLE: Library of Congress

Card 2/2

SOV/49-59-7-6/22

AUTHOR: Kogan, R. M.

TITLE: On a Method of Calculation of the γ -Radiation Energy in the Air Portion of a Homogeneous Geological Medium

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1959, Nr 7, pp 988-994 (USSR)

ABSTRACT: In order to avoid a difficult calculation of the primary γ -quantum energy E_0 (Eq (1)), a composite parameter of γ -radiation N is often expressed in terms of the energy in the air portion P . The absorbed energy can be defined as Eq (2) or as Eq (2a) in the case of the absorbed part which can be measured (in ergs/gm) and the formula (3) can be derived (Q - energy of the source of radiation). In order to express the radiation in terms of the ionization (in roentgens), the formulae (4) and (4a) should be applied where $\omega(E)_{\text{air}}$ - ionization effect in the air of the radiation energy E . It should be noted that for $E < 3 \text{ Mev}$,

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On a Method of Calculation of the γ -Radiation Energy in the Air Portion of a Homogeneous Geological Medium

the formula:

$$\omega(E)_{\text{air}} \approx \alpha \sigma_{\text{abs.}}(E)_{\text{air}}$$

can be defined and that the energy of the γ -radiation in the air portion is inversely proportional to the number of electrons. Thus, the energy of the medium can be defined as Eqs (5) and (6) where N_a - number of electrons, ρ - density, k - measure coefficient, γ - weight of the radioactive matter. As an example, the radiation energies in water (Eq (7)) and in the air-water zone (Eq (8)) are given. Also the air portion energy in the case of an additional γ -radiation scattered in the medium can be calculated (Eqs (9) and (10)). The energy of the air portion in rocks depends on their atomic content (Table 1) and on E_0 . This can be expressed by the Eqs (11)-(14) for $0.2 < E < E_0 < 3.0$ Mev (where z - atomic number). The energy of rocks ($z \leq 15$) can be determined from Eq (17),

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SOV/49-59-7-6/22

On a Method of Calculation of the γ -Radiation Energy in the Air
Portion of a Homogeneous Geological Medium

but in the case of a rock-air or rock-water zone, the
formula (8) should be applied. All the above formulae
are calculated to within 5-10 degrees of accuracy.
There is 1 table and there are 11 references, of which
4 are English and 7 are Soviet.

ASSOCIATION: Akademiya nauk SSSR, Institut prikladnoy geofiziki
(Academy of Sciences USSR, Institute of Applied Geophysics)

SUBMITTED: January 20, 1959.

Card 3/3